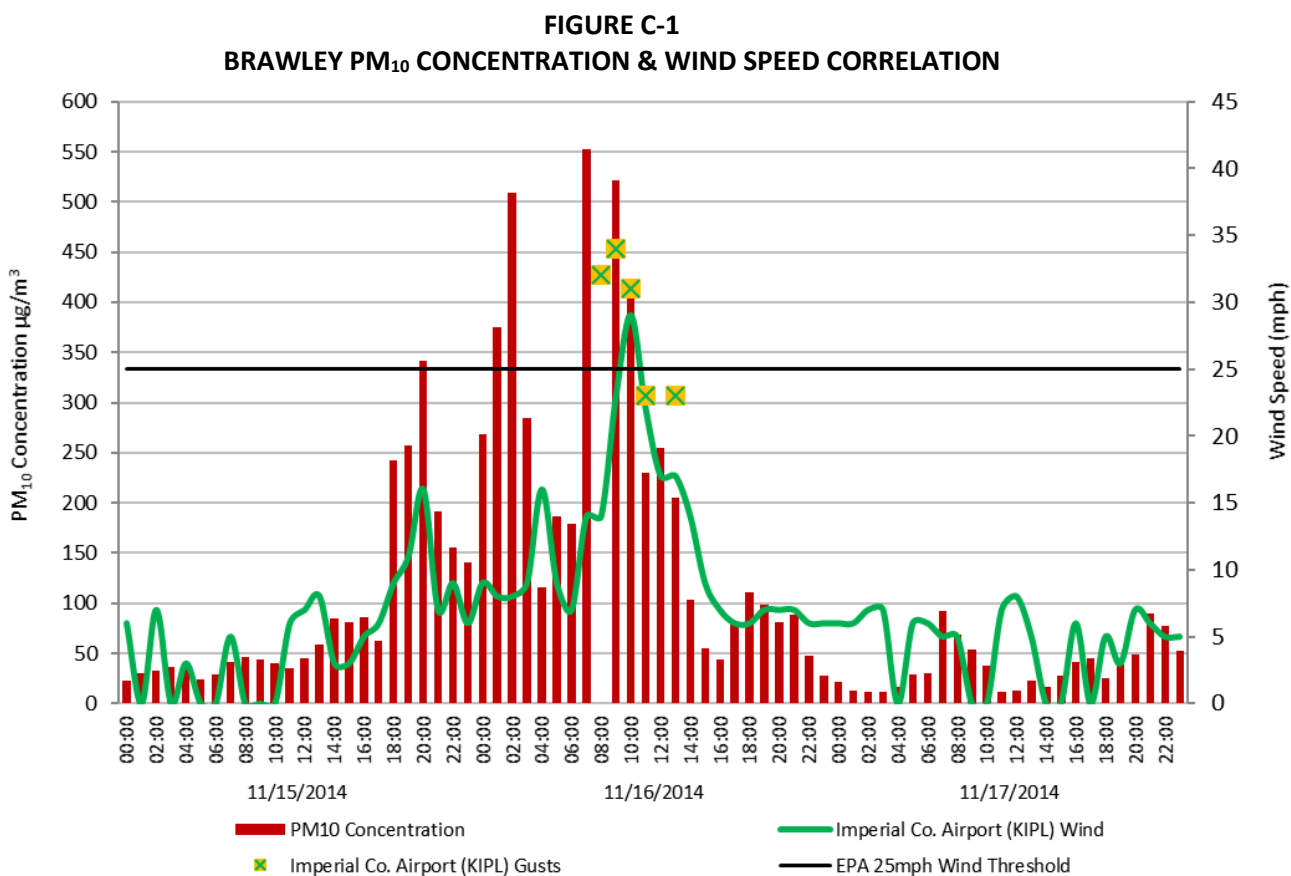


## Appendix C

### Correlated PM<sub>10</sub> Concentrations and Winds

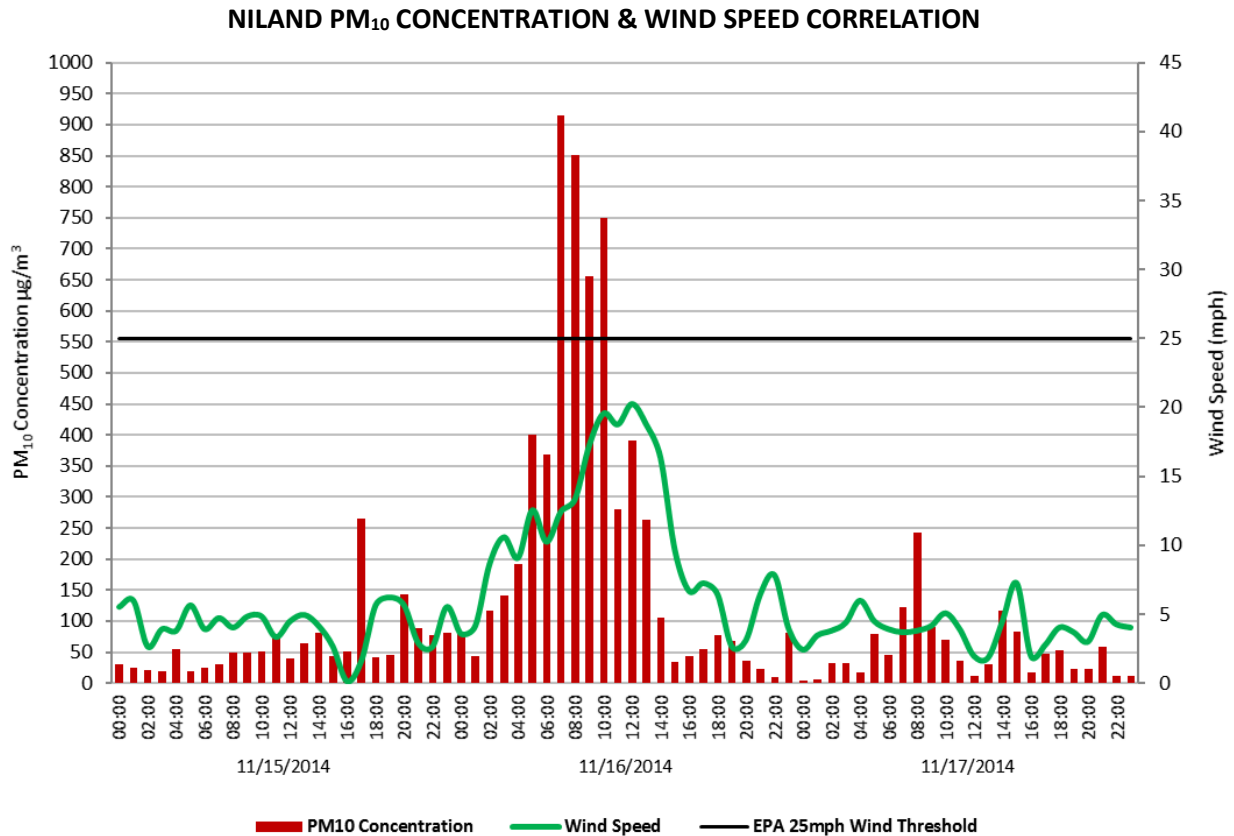
The following graphs illustrate the direct correlation between wind speeds<sup>1</sup> and PM<sub>10</sub> concentrations at select monitoring sites within the Salton Sea Air Basin on June 26, 2014. Note a variety of instruments measure wind speed at different times during any given hour. Therefore, the following graphs reflect the hour of the wind measurement.



**Fig. C-1:** Brawley hourly concentrations compared to wind speeds at Imperial County Airport (KIPL) over a 72-hour period. Brawley does not record wind data. KIPL was about 10 miles downstream of Brawley during the November 16 wind event. Air quality data from the EPA's AQS data bank. Wind data from the NCEI's QCLCD system.

### FIGURE C-2

<sup>1</sup> National Weather Service; NOAA's Glossary – Wind Speed: The rate at which air is moving horizontally past a given point. It may be a 2-minute average speed (reported as wind speed) or an instantaneous speed (reported as a peak wind speed, wind gust, or squall); <https://w1.weather.gov/glossary/index.php?letter=w>

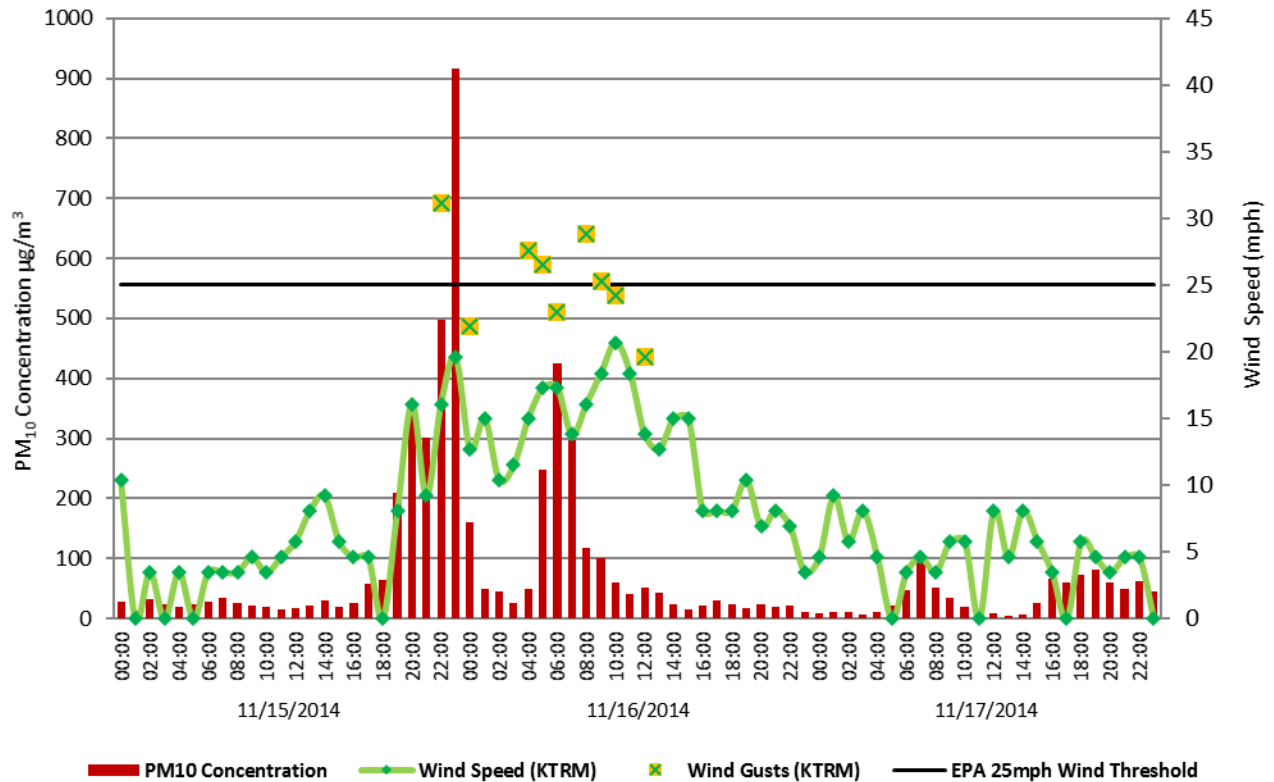


**Fig. C-2:** Although winds at Niland (English Rd) did not reach 25 mph, upstream winds were much higher. Strong winds at Blythe transported dust downstream. The lower wind speeds at Niland allowed entrained dust to be deposited on the monitor. Peak winds at Blythe are soon followed by increases in hourly concentrations at Niland. Niland is about 16 miles almost due north of Brawley, and therefore received a greater bulk of the dust being transported south, causing hourly concentrations at Niland to be higher than at Brawley. Air quality and wind data for Niland is from the EPA's AQS data bank.

#### RIVERSIDE COUNTY MONITORING SITES

**Figs. C-3 through C-5:** Monitoring sites in eastern Riverside County show a similar increase of PM<sub>10</sub> concentrations in response to higher wind speeds. Air quality data is from the EPA's AQS data bank. Wind data for Torres-Martinez Tribal is from the EPA's AQS data bank. Wind data for Palm Springs and Indio is from the University of Utah's MesoWest system.

**FIGURE C-3**  
**INDIO (JACKSON ST) PM<sub>10</sub> CONCENTRATION & WIND SPEED CORRELATION**



**FIGURE C-4**  
**TORRES-MARTINEZ DESERT CAHUILLA RESERVATION**

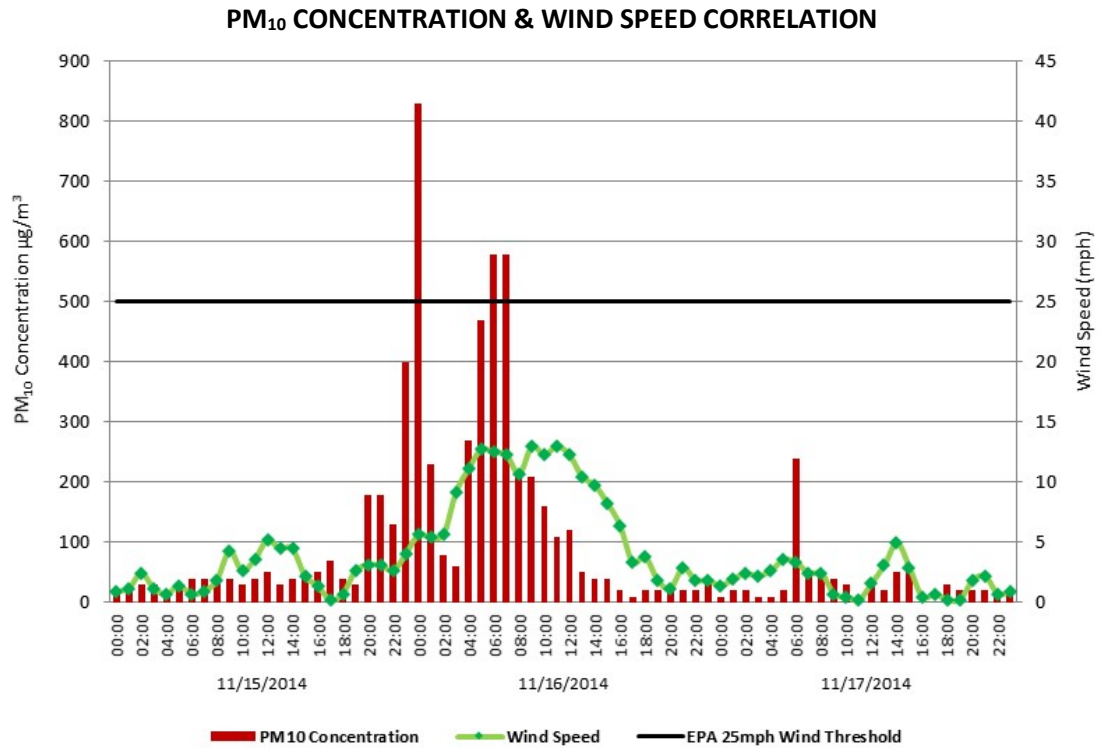
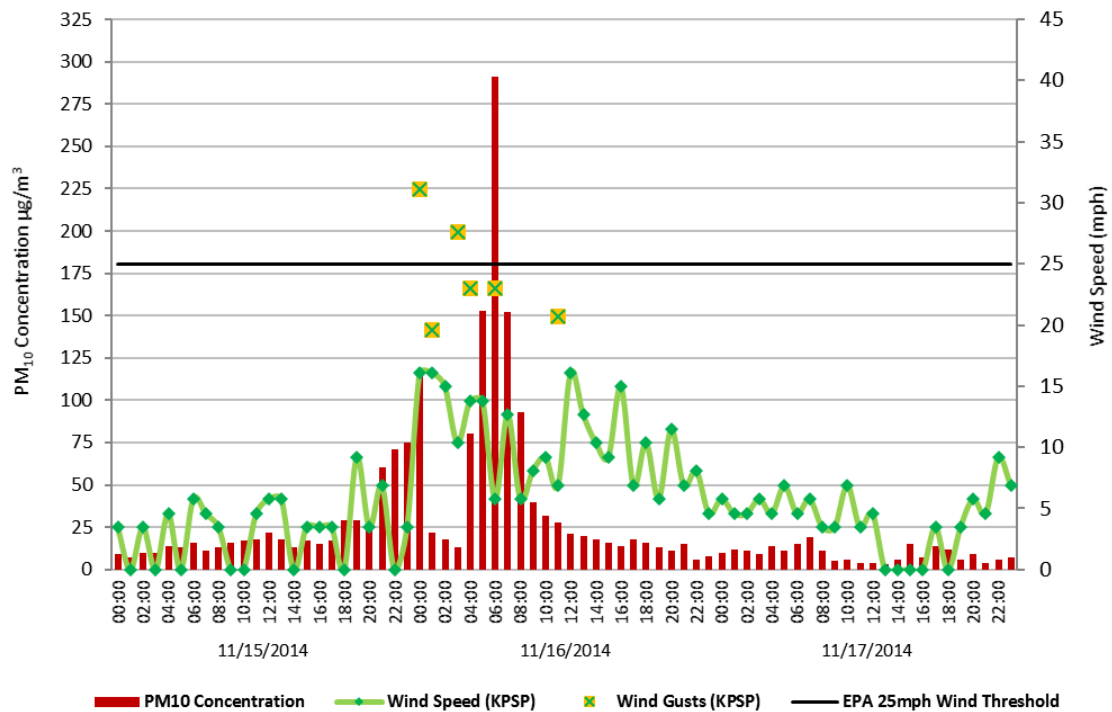
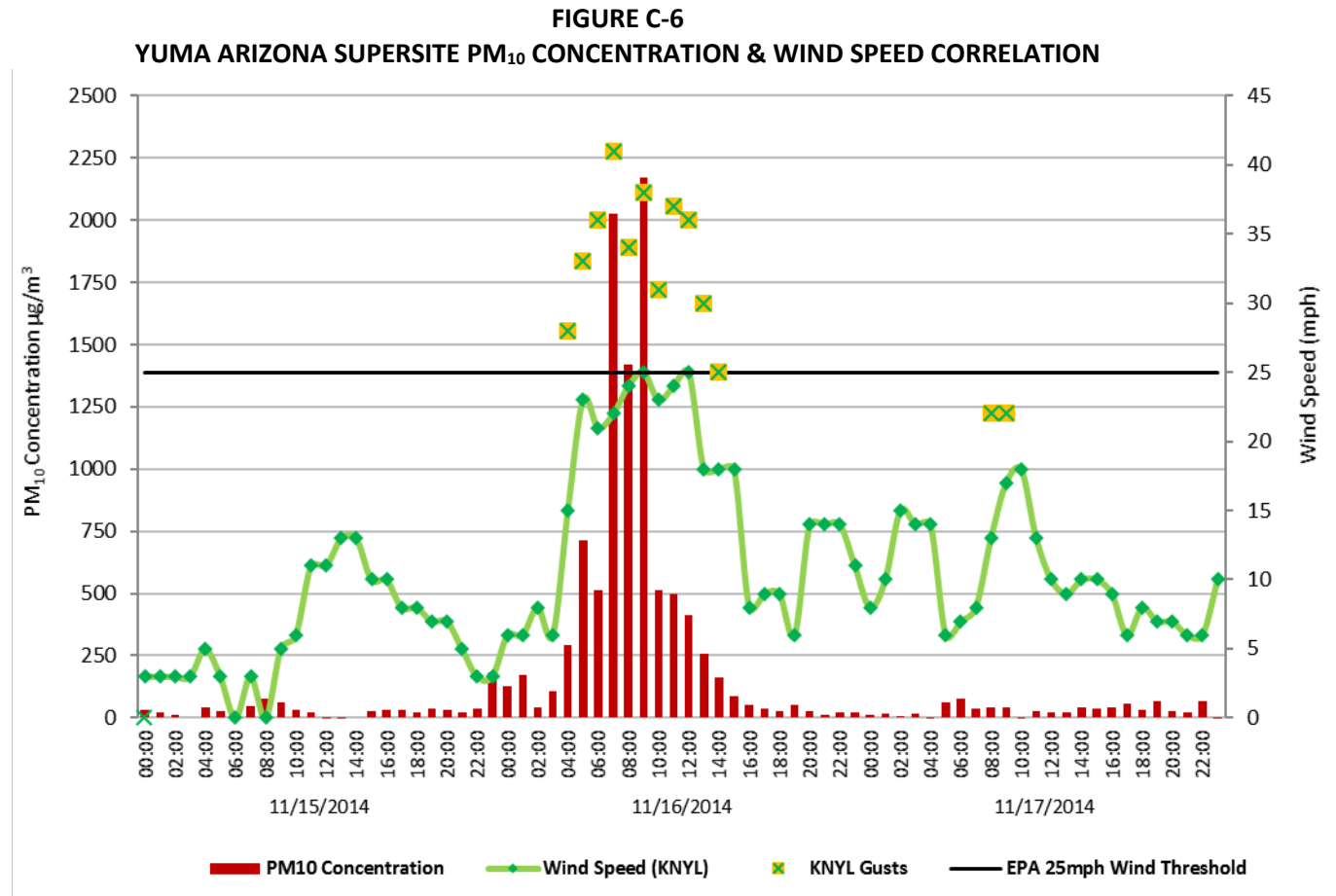


FIGURE C-5

PALM SPRINGS FIRE STATION PM<sub>10</sub> CONCENTRATION & WIND SPEED CORRELATION

SOUTHWESTERN ARIZONA



**Figs C-6:** Yuma monitoring site in Yuma, Arizona, located in the extreme southwestern part of Arizona, saw corresponding increases in particulate matter as wind speed increased during the day. Air quality data is from the EPA's AQS data bank. Wind data is from Yuma MCAS (KNYL) and the University of Utah's MesoWest system.